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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/685,423

10/16/2003

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EXAMINER

FINDLEY, CHRISTOPHER G

ART UNIT

PAPER NUMBER

2621

NOTIFICATION DATE

DELIVERY MODE

12/29/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/685,423	Applicant(s) SUGANO ET AL.	
	Examiner CHRISTOPHER FINDLEY	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,10,11,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,10,11,16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/03/2008 have been fully considered but they are not persuasive.
2. Re claims 1 and 7, the Applicant contends that the prior art cited fails to teach or suggest that the display area is divided in accordance with a total number of the index images extracted from the moving image. However, the Examiner respectfully disagrees. Sull discloses using multiple pages for displaying thumbnail images when more key frame images than can be comfortably displayed at once on the screen are present in the video stream being indexed (Sull: paragraph [0163]), wherein the user moves a cursor to navigate between key images (Sull: paragraph [0164]). Therefore, one of ordinary skill in the art at the time of the invention would have found it obvious that navigation controls, as disclosed by both Itoh (Itoh: Fig. 1, scroll key 6) and Sull (Sull: paragraph [0164]), would be used to navigate a display of multiple key frame images, wherein the display is divided according to the number of extracted key frame images that can be comfortably displayed (Sull: paragraph [0163]) when the prior art references are viewed in combination.
3. Re claims 1 and 7, the Applicant contends that the prior art cited fails to teach or suggest a maximum limit to the number of frames which may be displayed on the screen. However, the Examiner respectfully disagrees. Sull discloses using multiple pages for displaying thumbnail images when more key frame images than can be comfortably displayed at once on the screen are present in the video stream being

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indexed (Sull: paragraph [0163]). Clapper discloses setting a default number of key frame images to be displayed, and dividing the display into said default number of key frame images when no user selection is made (Clapper: Fig. 2, step 56). When the prior art references are viewed in combination, one of ordinary skill in the art at the time of the invention would have found it obvious that the combination of Sull and Clapper suggests setting a maximum number of displayed key frame images as a default, since Sull indicates using a maximum number of divisions as a threshold for determining whether to create multiple pages of key frame image thumbnails (Sull: paragraph [0163]).

4. The Applicant also suggests that Sull is not valid prior art because it is a continuation-in-part, and the relied-upon features therein are not disclosed in the parent application 09/911,293, relegating the effective date of Sull for the relied upon features to its own filing date, February 12, 2003, which does not pre-date the foreign priority date of the present application. However, as the Applicant also noted, the foreign priority claim of the present application has not been perfected, thus rendering the Applicant's assertion moot. Accordingly, the Applicant's assertion that the relied upon features are not present in the parent application have not been verified.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (US 7016596 B2) in view of Sull et al. (US 20040128317 A1), and further in view of Clapper (US 6925602 B1).

Re **claim 1**, Itoh discloses a digital camera for reproducing a moving image of a predetermined length having a plurality of frame images, the digital camera comprising: a moving image processing device that extracts individual frame images as index images from the moving image (Itoh: column 2, lines 25-31); a first display device that displays the index images in a divided display area, the first display device changing a number by which to divide the display area in accordance with the index images extracted from the moving image (Itoh: Figs. 1 and 2; column 5, lines 7-19); and a controller that starts reproduction of the moving image from the scene corresponding to a selected index image (Itoh: Fig. 4, step S25, selecting thumbnail image; Fig. 4, step S27, selecting first or second display; Fig. 4, step S28 and Fig. 5, step S35, outputting dynamic image).

Itoh does not specifically disclose generating the representative thumbnail image at a regular interval and dividing the display according to a total number of the index images extracted. However, Sull discloses a method and apparatus for viewing, browsing, navigating, and bookmarking videos and displaying images, wherein a plurality of key frame images are extracted from an arbitrary uniformly spaced time interval (Sull: paragraph [0183]). Sull also discloses using multiple pages for displaying thumbnail images when more key frame images than can be comfortably displayed at

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once on the screen are present in the video stream being indexed (Sull: paragraph [0163]), wherein the user moves a cursor to navigate between key images (Sull: paragraph [0164]). Therefore, one of ordinary skill in the art at the time of the invention would have found it obvious that navigation controls, as disclosed by both Itoh (Itoh: Fig. 1, scroll key 6) and Sull (Sull: paragraph [0164]), would be used to navigate a display of multiple key frame images, wherein the display is divided according to the number of extracted key frame images that can be comfortably displayed (Sull: paragraph [0163]). Since both Itoh and Sull relate to generating representative images from a video stream for facilitating user browsing, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the uniform time interval of Sull with the image processing system of Itoh in order to provide fast access to a video segment by eliminating the need for the complicated processing involved in feature point and scene change analysis sometimes used for extracting representative images.

The combined system of Itoh and Sull discloses a majority of the features of claim 1, as discussed above. Sull additionally suggests through the example given in paragraph [0183] that the video segment of interest is evenly divided into equally sized partitions, each being represented by a thumbnail image (Sull: paragraph [0183]), wherein multiple pages for displaying thumbnail images are used when more key frame images than can be comfortably displayed at once on the screen are present in the video stream being indexed (Sull: paragraph [0163]). Neither Itoh nor Sull explicitly discloses that if said total number of index images extracted from the moving image of a predetermined length exceeds a maximum, said regular interval is elongated such that

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said total number of index images extracted from the moving image of a predetermined length is equal to or less than said maximum. However, Clapper discloses a system for facilitating access to digital video, wherein the software routine for generating a graphical user interface (Clapper: Fig. 2) includes steps for setting a maximum number of frames to be displayed on the screen (Clapper: Fig. 2, step 50) and setting a time interval between representative frames (Clapper: Fig. 2, steps 46 and 56). Although Clapper does not explicitly disclose changing the interval between representative frames in response to the maximum number of displayed representative frames selected, Clapper does suggest the processor selecting an interval when no interval has been specified by the user. In view of the relationship between the number of thumbnail images displayed and the interval of time between thumbnail images, as suggested by Sull (Sull: paragraph [0183]), one of ordinary skill in the art at the time of the invention would have found it obvious to repeat the software routine of Clapper in order to maintain the relationship between the number of thumbnail images displayed and the interval of time between thumbnail images. Since Itoh, Sull, and Clapper all relate to generating a representative image browser display, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the software routine of Clapper with the image processing system of the combined method of Itoh and Sull in order to allow the user more flexibility with respect to the accuracy of scene content representation provided by the representative images. The combined system of Itoh, Sull, and Clapper has all of the features of claim 1.

Re **claim 2**, the combined system of Itoh, Sull, and Clapper discloses a majority of the features of claim 2, as discussed above in claim 1. Additionally, Itoh discloses that the first display device displays all index images at the same time (Itoh: Figs. 10A-10C and 11A-11D, multiple thumbnail images displayed).

Re **claim 4**, the combined system of Itoh, Sull, and Clapper discloses a majority of the features of claim 4, as discussed above in claim 1. Additionally, Itoh discloses that the first display device displays the index images and the moving image at the same time (Itoh: column 8, lines 13-20).

Re **claim 5**, the combined system of Itoh, Sull, and Clapper discloses a majority of the features of claim 5, as discussed above in claim 1. Additionally, Itoh discloses a second display device that displays the moving image (Itoh: Fig. 7, video monitor 40).

Re **claim 6**, the combined system of Itoh, Sull, and Clapper discloses a majority of the features of claim 6, as discussed above in claim 1. Additionally, Itoh discloses a photography device that captures a subject image continuously to obtain the moving image (Itoh: Fig. 1; column 4, lines 30-33; Fig. 10B).

Claim 7 recites the corresponding method for implementation by the apparatus of claim 1, and, therefore, has been analyzed and rejected with respect to claim 1 above.

Claim 8 has been analyzed and rejected with respect to claim 2 above.

Claim 10 has been analyzed and rejected with respect to claim 4 above.

Claim 11 has been analyzed and rejected with respect to claim 5 above.

Re **claim 16**, the combined system of Itoh, Sull, and Clapper discloses a majority of the features of claim 16, as discussed above in claim 1. Itoh does not specifically disclose that said total number of index images extracted from the moving image of a predetermined length is not less than a minimum. However, Sull suggests a minimum number of key images, in that Sull states “The content characteristic can be generated according to user preference, and will typically comprise at least one key frame image” (Sull: paragraph [0057]). Since Itoh, Sull, and Clapper all relate to generating a representative image browser display, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the software routine of Clapper with the image processing system of the combined method of Itoh and Sull in order to allow the user more flexibility with respect to the accuracy of scene content representation provided by the representative images. The combined system of Itoh, Sull, and Clapper has all of the features of claim 16.

Claim 17 has been analyzed and rejected with respect to claim 16 above.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER FINDLEY whose telephone number is (571)270-1199. The examiner can normally be reached on Monday-Friday (8:30 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
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